



## Summary of 2002 Activities

This report summarizes activities of staff of the USGS Northern Rocky Mountain Science Center in Fiscal Year 2002 (October 1, 2001 through September 30, 2002). The report covers major research initiatives, partnerships, administrative issues, significant accomplishments, and publications.

### Major Research Initiatives

The Center was established to provide a focus for USGS research in the Northern Rocky Mountain region and to conduct integrated, interdisciplinary research on natural resources of the region. Staff of the Center included scientists in the disciplines of ecology, geography, geology, statistics, wildlife biology, veterinary medicine, and zoology. Major research initiatives addressed (a) conservation requirements for wildlife, (b) understanding causes and consequences of environmental change, and (c) dissemination of natural science information. There were a large number of individual studies, with most effort dedicated to large national or regional initiatives. These were:

- Amphibian Research and Monitoring Initiative
- Interagency Grizzly Bear Study Team and other activities of the Interagency Grizzly Bear Committee
- Greater Yellowstone Initiative, a project of the USGS Place Based Studies Program
- Brucellosis Research Program of the Department of the Interior in coordination with the Greater Yellowstone Interagency Brucellosis Committee
- Ungulate Research Initiative in support of wildlife management by the National Park Service
- Fire Science Initiative in cooperation with the Joint Fire Sciences Program and the Department of the Interior
- Global Change Research Program

Details about the Center's staff and research initiatives can be found on the Center's web site: <http://nrmsc.usgs.gov>.

### Partnerships

Partnerships were vitally important to the Center. Individual research studies involved scientific collaborators in numerous academic institutions, state and Federal agencies, and organizations in the United States, Canada, and other countries. Given the Center's emphasis on scientific support for natural resource management, managers of natural resources at state and Federal levels also were important cooperators in individual studies.

At the Center level, significant partnerships in 2002 included

- National Park Service (Glacier, Grand Teton, and Yellowstone National Parks, and the Intermountain Regional Office)

- U.S. Fish and Wildlife Service (Red Rock Lakes National Wildlife Refuge, National Bison Range, and the Mountain–Prairie Regional Office)
- Montana Department of Fish, Wildlife and Parks (MT–FWP)
- Montana State University–Bozeman (MSU)
- Aldo Leopold Wilderness Research Institute, and
- Rocky Mountains Cooperative Ecosystem Studies Unit.

The Center entered into a formal cooperative agreement with MSU’s Big Sky Institute for Science and Natural History in 2002 for the purpose of developing the Northern Rockies Information Node of the National Biological Information Infrastructure (NBII). The Center also entered into a cooperative agreement with the National Park Service to host the National Park Service’s Inventory and Monitoring Program Office for the Greater Yellowstone Area network of parks.

### **Administrative Issues**

Efforts to develop the Center’s capability to conduct integrated, interdisciplinary science included support for scientists from the geology discipline and national mapping discipline of USGS, in addition to support for scientists from the biology discipline. An administrative staff based in Bozeman, Montana, provided common services for all scientists attached to the Center. Future plans call for:

- An increase in representation of the geology, national mapping and water resources disciplines
- Consolidation of all scientists under a single organizational unit, and
- Contribution by each discipline to support the cost of common services.

Personnel were stationed at three locations: Bozeman, Montana (MSU, U.S. Forest Service’s Forestry Sciences Laboratory, and MT–FWP Regional Office), West Glacier, Montana (Glacier National Park), and Missoula, Montana (Aldo Leopold Wilderness Research Institute). At each location, host institutions provided office space and related support through cooperative agreements. The Center maintained no USGS-owned facilities. The shortage of office and laboratory space at Bozeman led the Center and MSU to explore opportunities for development of new jointly occupied facilities, which would require a special appropriation of funds.

### **Significant Accomplishments**

At the risk of omitting many contributions of Center scientists, the following represent some major accomplishments:

- Technical assistance to state and Federal wildlife management agencies on brucellosis and Chronic Wasting Disease
- Discovery of an apparent connection between wildfires and population status of boreal toads
- Assistance to the Interagency Grizzly Bear Committee in developing the Conservation Strategy and associated state management plans for grizzly bears in the Yellowstone Ecosystem
- Development of a program to map the burn severity of wildfires nationwide in collaboration with the National Park Service and the EROS Data Center
- Collaboration with the Montana State Library’s Natural Resource Information System to maintain and integrate National Hydrologic Data for Montana

- Organization of the Rocky Mountain Summit, a conference on Sustaining Ecosystems and their People in conjunction with the International Year of Mountains.

## Publications

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